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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark Philip Gibbons

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06/16/2006

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EXAMINER

FOWLKES, ANDRE R

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,560	GIBBONS, MARK PHILIP	
	Examiner	Art Unit	
	Andre R. Fowlkes	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 3/8/06.
2. Claims 1-18 are pending. Claims 1, 8, 9 and 10 have been amended. New claims 12-18 have been added.

Claim Rejections - 35 USC § 112

3. The rejection of claim 10 under 35 U.S.C. 112, 2nd paragraph is withdrawn in view of applicant's amendment.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, there is no support given from the original disclosure for the limitation "without the use of a broker" or "brokerless" in claims 1, 9 and 12. There is no listing of the page and line numbers, from the specification, in support of each change in

the amended claims, in the remarks. Additionally, the examiner could not locate this limitation within the specification.

To overcome this objection, applicant may attempt to demonstrate that the original disclosure establishes that he or she was in possession of the amended subject matter or provide the page and line numbers, from the specification, in support of each change in the amended claims.

Accordingly, claims 2-8, 10-11 and 13-18 are rejected as being dependent on a rejected base claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al., (Thomas), U.S. Patent Publication No. 2002/0143641 in view of IBM Technical Disclosure Bulletin (IBM TDB), "Brokerless Object Network", No. NN960561 (art made of record).

As per claim 1, Thomas discloses a **method for allowing objects in a first programming language to communicate with objects in a second programming**

language (p. 1 col. R:41-44, "the client (using a first programming language) downloads the requested communication proxy and dynamically interacts, at runtime, with an Internet service (using a second programming language) using the requested communication proxy, the communication proxy being local to the client"), **comprising:**

- **receiving metadata information from a server running said second programming language on a client running said first programming language** (p. 1 col. R:32, "(a server) transmits metadata to the client"),

- **generating proxies for said first programming language on said client from said metadata information, wherein said proxies are generated by a one-to-one mapping of classes from said second programming language to said first programming language** (p. 1 col. R:20-12, "clients specify a type of communications proxy", and p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)", and the proxies must be generated at some point in time and the metadata is used to locate specific custom proxies that are used for a specific purpose, and p. 1 col. R:33-34, "the (one-to-one) matched Internet service communication proxy"),

- **implementing said proxies on said client, wherein said method is provided solely in said first programming language and said client does not require any components from said second programming language** (p. 1 col. R:41-44, "the client downloads the requested communication proxy and dynamically interacts,

at runtime, with an Internet service using the requested communication proxy, the communication proxy being local to the client”).

Thomas doesn't explicitly disclose an object communication system, **without the use of a broker**.

However, IBM TDB in an analogous environment, discloses an object communication system, **without the use of a broker** (p. 1:1-3, “Disclosed is a structure for an object network without a centralized Object Request Broker... A mechanism for a brokerless distributed object structure is disclosed”).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of the IBM TDB into the system of Thomas to have an object communication system, **without the use of a broker**. The modification would have been obvious because one of ordinary skill in the art would have wanted to build a robust communication system that would continue to function without regard of the operational status of any one broker or object.

As per claim 2, the rejection of claim 1 is incorporated and further, Thomas discloses **using said proxies to enable bi-directional communication between said client and said server** (Fig. 1, and associated text, (e.g. p. 1 col. R:54-61)).

As per claim 3, the rejection of claim 1 is incorporated and further, Thomas discloses that **said first programming language is a JAVA cross platform**

programming language and said second programming language is common language runtime (CLR) (p. 1 col. R:33-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)").

As per claim 5, the rejection of claim 1 is incorporated and further, Thomas discloses that **said client and said server communicate using SOAP formatted messages** (p. 1 col. R:36-39, "The application-level communication protocols include ... SOAP").

As per claim 6, the rejection of claim 1 is incorporated and further, Thomas discloses that **said client and said server communicate using binary formatted messages** (p. 2 col. L:4-6, "the metadata data (communicated) can be ... binary (formatted messages)").

As per claim 7, the rejection of claim 1 is incorporated and further, Thomas discloses **passing said proxies to a runtime tool using said first programming language** (p. 1 col. L:8-12, "this invention relates to ... dynamically interacting , at runtime, with an Internet service using ... (a) proxy", and figure 1, and associated text, (e.g. p. 1 col. R:54-61), shows a proxy being passed at runtime).

As per claim 8, the rejection of claim 7 is incorporated and further, Thomas discloses that **said proxies are generated using a development tool for said first programming language** (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)", and the proxies must be generated at some point in time and the metadata is used to locate specific custom proxies that are used for a specific purpose).

As per claim 9, Thomas discloses **a system enabling bi-directional communication using .Net Remoting protocol between JAVA objects in a JAVA virtual machine environment and .Net assemblies objects in a common language runtime (CLR) environment** (p. 1 col. R:41-44, "the client (using a first programming language) downloads the requested communication proxy and dynamically interacts, at runtime, with an Internet service (using a second programming language) using the requested communication proxy, the communication proxy being local to the client"), **comprising:**

- **a computer network** (p. 1 col. R:16, "Internet"),
- **a JVM computer having random access memory (RAM) and at least one of hard disk storage memory (HDS) and solid state storage memory (SSSM), said computer having a JAVA virtual machine (JVM) environment and JAVA objects in one of said HDS and SSSM, said JVM computer coupled to said computer network** (p. 1 col. R:32-35, " (Proxies are available for) Java),

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- a CLR computer having random access memory (RAM) and at least one of hard disk storage memory (HDS) and solid state storage memory (SSSM), said computer having a CLR environment and .Net assemblies in one of said HDS and SSSM, said CLR computer coupled to said network (p. 1 col. R:32-35, "(Proxies are available for) Java (and) common language runtime (CLR),

- a JAVA development computer with RAM, and at least one of HDS and SSSM, said JAVA development computer having a JVM environment and a JAVA-based tool in one of said HAD or SSSM, said JAVA development computer coupled to said network, (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate (i.e. select) the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)", and the proxies must be generated at some point in time), **wherein:**

- said JAVA-based tool generates JAVA corresponding to specified .Net assemblies running on said CLR computer, wherein said JAVA proxies are generated by a one-to-one mapping of classes between JAVA and CLR (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)", and the proxies must be generated at some point in time and the metadata is used to locate specific custom proxies that are used for a specific purpose, and p. 1 col. R:33-34, "the (one-to-one) matched Internet service communication proxy),

- said JAVA proxies are copied onto said VM computer and are operative to allow said JAVA objects to communicate with specified .Net assemblies on said CLR computer (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)"),

- a CLR development computer having memory comprising RAM, and at least one of HDS and SSSS, and having a CLR environment in said memory, said CLR development computer coupled to said computer network, (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime), **and having:**

- a CLR-based tool in said memory wherein said CLR-based tool generates .Net proxies corresponding to specified JAVA objects, wherein said .Net proxies are generated by a one-to-one mapping of classes between JAVA and CLR, and wherein said .Net proxies are copied onto said CLR computer and are operative to allow said CLR objects to communicate with said specified JAVA objects on said JVM computer, (p. 1 col. R:32-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)", and the proxies must be generated at some point in time and the metadata is used to locate specific custom proxies that are used for a specific purpose, and p. 1 col. R:33-34, "the (one-to-one) matched Internet service communication proxy).

Thomas doesn't explicitly disclose a **brokerless** object communication system.

However, IBM TDB in an analogous environment, discloses a **brokerless** object communication system, (p. 1:1-3, "Disclosed is a structure for an object network without a centralized Object Request Broker... A mechanism for a brokerless distributed object structure is disclosed").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of the IBM TDB into the system of Thomas to have a **brokerless** object communication system. The modification would have been obvious because one of ordinary skill in the art would have wanted to build a robust communication system that would continue to function without regard of the operational status of any one broker or object.

As per claim 10, the rejection of claim 9 is incorporated and further, Thomas discloses a **JAVA cross platform programming language-based runtime tool stored on said JVM computer for handling said JAVA proxies and said .Net proxies** (p. 1 col. R:33-35, "(Proxies are run for communicating between) Java (and) common language runtime (i.e. a first and second programming language technologies)").

As per claim 11, the rejection of claim 10 is incorporated and further, Thomas discloses that a **JAVA cross platform programming language-based runtime tool is**

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capable of operating independently of said a JAVA cross platform programming language-based tools for generating JAVA and .Net proxies (figure 1, and associated text, (e.g. p. 1 col. R:54-61) shows the runtime operation, independently of the development operation and p. 1 col. R:33-35, "(Proxies are run for) Java (and) common language runtime (i.e. a first and second programming language technologies)").

As per claims 12-18, this is a computer readable medium version of the claimed system discussed above, in claims 1-3 and 5-8, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Thomas p. 1 col. L:8- p. 2 col. L:6 and IBM TDB p. 1:1-3.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al., (Thomas), U.S. Patent Publication No. 2002/0143641 in view of IBM Technical Disclosure Bulletin (IBM TDB), "Brokerless Object Network", No. NN960561 further in view of Zhang, U.S. Patent Publication No. 2003/0101235.

As per claim 4, the rejection of claim 1 is incorporated and further, Thomas discloses that **said second programming language is a JAVA cross platform programming language** (p. 1 col. R:33-35, "transmits metadata to the client enabling the client to locate the ... proxy. (Proxies are available for) Java (and) common language runtime (i.e. a first and second programming language technologies)").

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Thomas doesn't explicitly disclose that **said first programming language is .Net Remoting**. However, Zhang, in an analogous environment, discloses that **said first programming language is .Net Remoting** (p. 7 col. R:17-20, "(the) messages can sit on a number of communication ... (protocols, including) Microsoft .NET Remoting").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Zhang into the Thomas/IBM TDB system to use .NET Remoting. The modification would have been obvious because one of ordinary skill in the art because one would want the flexibility and convenience of using .Net remoting to communicate across any protocol.

Response to Arguments

8. Applicants arguments have been considered but they are not persuasive.

In the remarks, the applicant has argued substantially that:

1) With regard to claims 1, 9 and 12, in contrast to the Thomas/Zhang system, no broker is used in the instant application, at p. 9:1-12 and 11:1-5.

Examiner's response:

1) Applicant's arguments with respect to claims 1, 9 and 12 have been considered but are moot in view of the new ground(s) of rejection.

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In the remarks, the applicant has argued substantially that:

- 2) In contrast to the Thomas/Zhang system, the proxy is generated by the client, at p. 9:14-18.

Examiner's response:

- 2) The examiner disagrees with applicant's characterization of the applied art. Thomas explicitly discloses that "In an embodiment of the invention, the client is relieved from having to develop a remote communications code", at p. 1 Col. R:50-52. In this statement, Thomas clearly indicates that in other embodiments it is advantageous for the client to actually generate the remote communications code.

In the remarks, the applicant has argued substantially that:

- 3) The present invention generates proxies statically in contrast to the Thomas system, which generates proxies dynamically, at p. 9:19-25.

Examiner's response:

- 3) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., generating proxies *statically*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In the remarks, the applicant has argued substantially that:

- 4) A direct one-to-one mapping of classes is not disclosed by Thomas, at p. 10:18-23, and at 11:4-5.

Examiner's response:

- 4) The examiner disagrees with applicant's characterization of the applied art. Thomas discloses a direct one-to-one mapping of classes at p. 1 col. R:33-34, "the (one-to-one) matched Internet service communication proxy," as described in the art rejection, above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (571) 272-3697. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARF



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